

EMERITUS – PERIVALLON Joint Workshop at ASITA Conference

Leveraging geomatics for environmental crime detection: Innovation, challenges, and future directions

*10 December 2024, 11:00-13:00
Centro Culturale Altinate - San Gaetano
Padova (PD), Italy*

Topic

Workshop on the utilisation of geomatics for environmental crimes detection.

Subtopics

1. Artificial Intelligence in Geomatics (GeoAI)
2. New sensors, platforms and products in Remote Sensing
3. Sensors, platforms and algorithms for processing photogrammetric data and LiDar
4. Open data: standards and protocols – i.e., beyond Copernicus: national ones. How to allow the interoperability between professionals from different PAs and organisations?

Workshop description and aim

This workshop focuses on the innovative utilisation of geomatics in detecting and combating environmental crimes. Leveraging tools such as satellite imagery, LiDar, drones, and spatial databases, geomatics enables real-time monitoring and analysis of spatial data, helping authorities identify illegal activities that threaten both the environment and public health. The workshop will showcase the technological advancements from the Horizon Europe projects EMERITUS and PERIVALLON, demonstrating how they contribute to environmental crime detection.

The workshop will open with a keynote speech addressing the consequences of environmental crimes at both the Italian and EU levels, setting the context with a review of the state-of-the-art technological solutions currently in use and under development. This will be followed by technical presentations and demos of the solutions developed by EMERITUS and PERIVALLON, providing an interactive experience for attendees.

A second keynote will focus on the legal aspects of environmental crime, discussing the limitations and challenges of data sharing as well as emerging grey areas in environmental legislation that impact the full implementation of these solutions. External speakers will further enrich the discussion by presenting the latest advancements in open data, remote sensing, and GeoAI, highlighting the future directions in these fields.



Finally, a discussion session will invite feedback from participants, including external stakeholders and end-users, on the presented solutions. The workshop aims to foster a dynamic exchange of ideas, addressing both the technical innovations and the legal and practical challenges surrounding the detection and enforcement of environmental crimes.

AGENDA			
ID	TIME	DESCRIPTION	SPEAKERS
1	11:00 – 11:15	<p><i>1st Keynote speech to set the ground for the workshop:</i></p> <ul style="list-style-type: none"> • Overview of the consequences of environmental crimes at Italian and EU levels (with figures); • SoA of technological solutions currently in use and being developed; • The role of R&I projects like EMERITUS & PERIVALLON 	<ul style="list-style-type: none"> • Alessandro Castagnetti, SAFE
2	11:15 – 11:30	EMERITUS technical presentation & demo	<ul style="list-style-type: none"> • Prof. Marco Piras, POLITO
3	11:30 – 11:45	PERIVALLON technical presentation & demo	<ul style="list-style-type: none"> • Luca Morandini, POLIMI
4	11:45 – 12:00	<p><i>2nd Keynote speech on legal aspects:</i></p> <ul style="list-style-type: none"> • Legal limits (i.e., sharing data) and grey areas/not clearly regulated topics that prevent projects solutions to be applied fully • Optional: definition of environmental crime, new environmental crime directive 	<ul style="list-style-type: none"> • Cristina Nardelli from UNICRI
5	12:00 – 12:30	<p>Presentations from external speakers</p> <ul style="list-style-type: none"> • GFOSS.it APS: Open data • AIT: The future of remote sensing: in which direction is RS going and its potential implications for detecting environmental crimes • Società Italiana di Fotogrammetria e Topografia (SIFET): geo-AI innovations • ISPRA: The national strategy for the definition of Insight Situational Awareness services 	<ul style="list-style-type: none"> • Paolo Dabove - President of GFOSS.it APS • Enrico Borgogno AIT president • Caterina Balletti - SIFET • Serena Geraldini, ISPRA
6	12:30 – 12:55	Discussion and feedback on two projects	<ul style="list-style-type: none"> • Roundtable • Chairs: Prof. Marco Piras & Luca Morandini
7	12:55 – 13:00	Conclusions	<ul style="list-style-type: none"> • Alessandro Castagnetti, SAFE

